UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,276	11/09/2001	Daniel S. Gritter	POU901034US1	9648

46369   7590   05/19/2005

HESLIN ROTHENBERG FARLEY & MESITI P.C.
5 COLUMBIA CIRCLE
ALBANY, NY 12203

EXAMINER
YIGDALL, MICHAEL J

ART UNIT	PAPER NUMBER
2192	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/040,276	GRITTER, DANIEL S.
	Examiner	Art Unit
	Michael J. Yigdall	2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *17 December 2004*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-22,24 and 27-44* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-22,24 and 27-44* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Applicant's amendment and response filed on December 17, 2004 has been fully

considered. Claims 1-22, 24 and 27-44 are now pending.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-41 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-11, 13-22, 24, 27-39 and 41-44 are rejected under 35 U.S.C. 102(e) as being

anticipated by U.S. Pat. No. 6,263,489 to Olsen et al. (art of record, "Olsen").

       With respect to claim 1 (currently amended), Olsen discloses a method of restoring

debugging breakpoints (see, for example, the abstract), said method comprising:

       (a) having a breakpoint that is set to a selected step of a program (see, for example,

column 12, lines 1-3, which shows setting a breakpoint to a selected step of a program), said

program being absent embedded debug commands (see, for example, column 4, lines 12-28,

which shows illustrative source code that is absent embedded debug commands); and

(b) automatically restoring, after modification of the program, the breakpoint to the

selected step (see, for example, column 13, lines 8-12, which shows restoring the breakpoint),

wherein the selected step is at a different location within the modified program (see, for example,

column 2, lines 63-67, which shows that the selected step is at a different location within the

modified program).

With respect to claim 2 (original), the rejection of claim 1 is incorporated, and Olsen

further discloses the limitation wherein said automatically restoring comprises locating the

selected step within the modified program (see, for example, column 12, line 64 to column 13,

line 4, which shows locating the selected step within the modified program), said locating

comprising comparing at least one attribute of one or more attributes of the selected step to at

least one attribute of one or more attributes of one or more lines of code of the modified program

to locate the selected step (see, for example, column 12, lines 15-63, which shows comparing

attributes of the selected step to lines of code of the modified program).

With respect to claim 3 (original), the rejection of claim 1 is incorporated, and Olsen

further discloses the limitation wherein the automatically restoring comprises:

(a) locating the selected step within the modified program (see, for example, column 12,

line 64 to column 13, line 4, which shows locating the selected step within the modified

program); and

(b) setting the breakpoint at that location (see, for example, column 13, lines 8-12, which

shows setting the breakpoint at that location).

With respect to claim 4 (original), the rejection of claim 3 is incorporated, and Olsen

further discloses the limitation wherein the locating comprises using an instruction profile to

locate the selected step (see, for example, column 12, lines 3-14, which shows using an

instruction profile to locate the selected step).

With respect to claim 5 (original), the rejection of claim 4 is incorporated, and Olsen

further discloses the limitation wherein the instruction profile comprises one or more attributes

of one or more machine instructions generated for the selected step (see, for example, column 12,

lines 3-14, which shows that the instruction profile comprises attributes of the machine

instructions generated for the selected step).

With respect to claim 6 (original), the rejection of claim 5 is incorporated, and Olsen

further discloses the limitation wherein said locating comprises comparing at least one attribute

of the one or more attributes of the instruction profile to at least one attribute of one or more

attributes of one or more machine instructions of one or more lines of code of the modified

program to locate the selected step (see, for example, column 12, lines 15-63, which shows

comparing attributes of the instruction profile to attributes of the machine instructions of the

lines of code of the modified program).

With respect to claim 7 (original), the rejection of claim 5 is incorporated, and Olsen

further discloses choosing a number of machine instructions of the selected step to be included in

the instruction profile (see, for example, column 12, lines 3-14, which shows choosing a number

of instructions to be included in the instruction profile).

With respect to claim 8 (original), the rejection of claim 7 is incorporated, and Olsen

further discloses the limitation wherein the choosing comprises:

(a) selecting a number of instructions to be included in a calibration profile (see, for

example, column 5, lines 8-23, which shows selecting a number of instructions to be included in

a calibration profile);

(b) generating the calibration profile for a chosen line of the program, said calibration

profile having the selected number of instructions for said chosen line (see, for example, column

4, line 66 to column 5, line 8, which shows calculating or generating the calibration profile);

(c) comparing one or more attributes of said calibration profile to one or more attributes

of at least one line of code of the program to obtain a result (see, for example, column 12, lines

15-63, which shows comparing attributes of the calibration profile to lines of code);

(d) determining whether the result is an unambiguous result (see, for example, see, for

example, column 5, lines 38-45, which shows that the result may be ambiguous, and column 5,

lines 46-51, which shows detecting or determining whether the result is unambiguous); and

(e) repeating, zero or more times, said selecting, said generating, said comparing, and

said determining until the determining indicates an unambiguous result, wherein the selected

number of instructions increases at each iteration (see, for example, column 9, lines 19-49, which

shows repeating the process and increasing a count of instructions until there is an unambiguous

result), and wherein the selected number of instructions indicates, when there is an indication of

an unambiguous result, the number of machine instructions to be included in the instruction

profile (see, for example, column 10, lines 4-11, which shows indicating the instructions to be

included in the instruction profile when there is an unambiguous result).

With respect to claim 9 (original), the rejection of claim 1 is incorporated, and Olsen further discloses the limitation wherein the different location comprises a different line number within the modified program (see, for example, column 4, lines 30-43, which shows that the different location is a different line number within the modified program).

With respect to claim 10 (original), the rejection of claim 1 is incorporated, and Olsen further discloses the limitation wherein said having the breakpoint set comprises requesting, by a user, that the breakpoint be set at the selected step (see, for example, column 12, lines 1-3, which shows that a user requests to set the breakpoint at the selected step).

With respect to claim 11 (original), the rejection of claim 1 is incorporated, and Olsen further discloses the limitation wherein said automatically restoring is performed by a debugger (see, for example, column 3, lines 57-67, which shows that the automatic restoring is performed by a debugger).

With respect to claim 13 (currently amended), Olsen discloses a method of facilitating debugging of programs (see, for example, the abstract), said method comprising:

(a) using a debugger to step through a program until it reaches a breakpoint at a selected step (see, for example, column 4, lines 30-43, which shows using a debugger to execute instructions of a program until it reaches a breakpoint at a selected step), said program being absent embedded debug commands (see, for example, column 4, lines 12-28, which shows illustrative source code that is absent embedded debug commands); and

(b) re-running the debugger, subsequent to revising the program, to step through the revised program until it reaches the breakpoint at the selected step (see, for example, column 11, lines 16-28, which shows running the debugger for a second pass subsequent to revising the program), said breakpoint automatically restored, subsequent to the revising, to the selected step, regardless of the location of the selected step within the revised program (see, for example, column 13, lines 8-12, which shows restoring the breakpoint, and column 2, lines 63-67, which shows debugging regardless of the location of the selected step within the revised program).

With respect to claim 14 (currently amended), claims 15-22 (original) and claim 24 (original), the limitations recited in the claims are analogous to those of claims 1-9 and 11, respectively (see the rejection of claims 1-9 and 11 above).

With respect to claim 27 (currently amended), the limitations recited in the claim are analogous to those of claim 1 (see the rejection of claim 1 above).

With respect to claim 28 (currently amended), the limitations recited in the claim are analogous to those of claim 13 (see the rejection of claim 13 above).

With respect to claim 29 (currently amended) and claims 30-39 (original), the limitations recited in the claims are analogous to those of claim 1-11, respectively (see the rejection of claims 1-11 above).

With respect to claim 41 (currently amended), the limitations recited in the claim are analogous to those of claim 13 (see the rejection of claim 13 above).

With respect to claim 42 (new), Olsen discloses a method of restoring debugging breakpoints (see, for example, the abstract), said method comprising:

(a) having a breakpoint that is set to a selected step of a program (see, for example, column 12, lines 1-3, which shows setting a breakpoint to a selected step of a program); and

(b) automatically restoring, after modification of the program, the breakpoint to the selected step (see, for example, column 13, lines 8-12, which shows restoring the breakpoint), wherein the selected step is at a different location within the modified program (see, for example, column 2, lines 63-67, which shows that the selected step is at a different location within the modified program), and wherein the automatically restoring comprises:

(i) creating an instruction profile that includes one or more attributes of one or more instructions generated for the selected step of the program prior to modification and zero or more attributes of zero or more other instructions to facilitate uniquely identifying a location of the selected step (see, for example, column 4, line 66 to column 5, line 8, which shows calculating or creating an instruction profile that includes attributes of instructions generated for the selected step of the source code, i.e. the selected step of the program prior to modification); and

(ii) comparing one or more attributes of the instruction profile to one or more attributes of one or more instructions generated for the modified program to determine the location of the selected step to restore the breakpoint to the determined location (see, for example, column 12, line 15 to column 13, line 4, which shows comparing attributes of the instruction profile to attributes of the instructions generated for the modified program to locate the selected step).

With respect to claim 43 (new), the rejection of claim 42 is incorporated, and Olsen

further discloses the limitation wherein the comparing yields one or more difference counts and a

difference count having a smallest value indicates the location of the selected step (see, for

example, column 10, lines 12-16, which shows determining the difference in counts, and column

9, lines 51-54, which shows that the earliest instance, i.e. the smallest difference, indicates the

location of the selected step).

With respect to claim 44 (new), the rejection of claim 42 is incorporated, and Olsen

further discloses the limitation wherein the location is identified by a substantial match between

the one of more attributes of the instruction profile and one or more attributes of one or more

instructions of the modified program (see, for example, column 10, lines 53-63, which shows

that the location is identified by a substantial match between attributes of the instruction profile

and attributes of the modified program).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 12 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen,

as applied to claims 11 and 39 above, respectively, in view of U.S. Pat. No. 5,819,093 to

Davidson et al. (art of record, "Davidson").

With respect to claim 12 (original), the rejection of claim 11 is incorporated, but Olsen

does not expressly disclose the limitation wherein the debugger is a distributed debugger.

However, Davidson discloses a distributed debugger that enables the user to debug

distributed applications seamlessly and with low overhead (see, for example, column 3, lines 20-

26) using breakpoints (see, for example, column 8, lines 19-40).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to supplement the method of Olsen with the distributed debugging features taught by

Davidson, so as to debug distributed applications seamlessly and with low overhead.

With respect to claim 40 (original), the limitations recited in the claim are analogous to

those of claim 12 (see the rejection of claim 12 above).

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael J. Yigdall whose telephone number is (571) 272-3707.

The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MY

Michael J. Yigdall
Examiner
Art Unit 2192

mjy

TUAN DAM
SUPERVISORY PATENT EXAMINER